

List of All Chemicals

P Lippia graveolens (Verbenaceae)

Common name(s)

Oregano

How used

Medicinal

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Plant Part	Low PPM	High PPM	StdDev	*Reference
CARVACROL	Leaf	--	--		*
Activities (37)					
Allergenic					
Anesthetic					
Anthelmintic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antialzheimeran?	L. Gracza (1985) as cited by Buchbauer re antiacetylcholinesterase.				
Antiatherosclerotic IC50=5.53 uM					
Antibacterial MIC 170-290	Chalchat, J.C. et Garry, R.P.* , Bastide, P., Fabre, F. et Malhuret, R. Correlation Composition Chimique/Activite Antimicrobienne: V - Contribution a la Comparaison de 2 Methodes de Determination Des Cm. Plantes medicinales et phytotherapie, 25: 184-193.				
Antibacterial MIC=39-625	Russell, G. B., Phytochemical resources for crop protection, N. Z. J. Technol., 2, 1986, 127-134.				
Anticholinesterase?	L. Gracza (1985) as cited by Buchbauer re antiacetylcholinesterase.				
Antidiuretic	Lawrence Review of Natural Products, Mar-92.				
Antiinflammatory IC50=4 uM					
Antimelanomic IC50=120 uM/l					
Antioxidant	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.				
Antioxidant (LDL) IC50=5.53 uM					
Antiplaque MIC=39- 625 ug/ml	Osawa, K., Matsumoto, T., Maruyama, T., Takiguchi, T., Okuda, K., and Takazoe, I., Studies of the antibacterial activity of plant extracts and their constituents against periodontopathic bacteria, Bull Tokyo Dent. Coll., 31 (1), 1990, 17-21				
Antiprostaglandin					
Antiradicular 600 x thymol	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.				
Antiseptic 1.5 x phenol					
Antispasmodic					
Antistaphylococcic					
Antistreptococcic					
Antitussive	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.				
Candidicide MIC<0.1 ug/ml					
Candidicide 100- 150 ug/ml					
Carminative	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.				
Cyclooxygenase- Inhibitor #NAME?					
Enterorelaxant	J. Aromatherapy 4: 22.				
Expectorant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.				
Flavor FEMA 10- 125	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry				
Fungicide	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Insectifuge					
Irritant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.				
Nematicide MLC=1 mg/ml					
Pesticide					
Prostaglandin- Inhibitor					
Tracheorelaxant					
Trichomonicide LD100=150 ug/ml					
Vermifuge					

LAPACHENOLE	Root	--	210.0	*
NARINGENIN	Shoot	--	70.0	-1.0
Activities (56)				
11B-HSD-Inhibitor				
Aldose-Reductase-Inhibitor IC25=1 uM	Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888.			
Aldose-Reductase-Inhibitor IC78=10 uM	Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888.			
Aldose-Reductase-Inhibitor 100 uM	Oliveira, T. T., Nagem, T.J., Miranda, L. C. G., Paula, V. F., Teixeira, M. A. 1997. Inhibitory Action on Aldose Reductase by Soybean Flavonoids. <i>J Braz Chem Soc</i> , 8(3): 211-213.			
Aldose-Reductase-Inhibitor 1 ug/mL	Aida, K., Tawata, M., Shindo, H., Onaya, T., Sasaki, H., Yamaguchi, T., Chin, M.(Chen, Z.), and Mitsuhashi, H. 1989. Isoliquiritigenin: A New Aldose Reductase Inhibitor from Glycyrrhizae Radix. <i>Planta Medica</i> 56(3): 254-258.			
AntiHIV IC35=200 ug/ml				
Antiacetylcholinesterase				
Antiaflatoxin IC50=12 uM				
Antiaflatoxin IC50=3.37 ppm				
Antiaggregant	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.			
Antialzheimeran				
Antiamnesic				
Antamyloid-Beta				
Antibacterial MIC=250-500 ug/ml	Planta Medica, 57: A43, 1991.			
Anticancer				
Antiescherichic				
Antiestrogenic				
Antifibrotic				
Antihepatotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.			
Antiherpetic	Economic & Medicinal Plant Research, 5: 197.			
Antiinflammatory 20 ppm				
Antileukemic IC50=>10 ug/ml	Life Sciences 55: 1061.			
Antimutagenic ID50=50-100 nM	Maga, J.A. Contribution of Phenolic Compounds to Smoke Flavor. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.13.			
Antioxidant 7 x quercetin				
Antiperistaltic				
Antiperoxidative	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.			
Antiradicular 7 x quercetin				
Antisindhis IC50=15 ug/ml				
Antispasmodic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.			
Antistaphylococcic				
Antitumor				
Antitumor-Promoter				
Antiulcer	Fitoterapia No.5-1990.			
Antiviral IC50=15 ug/ml				
Aphidifuge				
Aromatase-Inhibitor IC45=1 uM/l	Journal of Medicinal Food 2: 235.1999.			
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.			
Candidicide				
Choleretic				
Cytochrome-P450-Inhibitor	Pizzorno, J. 1998. Total Wellness. Prima Health, a division of Prima.			
Decarboxylase-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.			
Embryotoxic				
Estrogenic EC50=0.1-25 uM/l				
Fungicide 2.5 mM				
Fungistat	Weidenborner, M., Hindorf, H., Jha, H.C., and Tsotsonos, P. 1989. Antifungal Activity of Flavonoids Against Storage Fungi of the Genus Aspergillus. <i>Phytochemistry</i> . 29(4): 1103-1105.			
Hepatoprotective IC50=12 uM				
Hepatoprotective IC50=3.37 ppm				
Neuroprotective				
P450-Inhibitor				
Pesticide				
Serotonin-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London.			

TNF-alpha-Inhibitor
IC50=14.41 uM

Teratogenic

Topoisomerase-I-Inhibitor Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. *Toxicol Ind Health*, 14: 223-237.

Uterotrophic EC50=0.1-25 uM/l Journal of Medicinal Food 2: 227.1999.

cAMP-
Phosphodiesterase-
Inhibitor Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

NARINGENIN	Root	--	85.0	*
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Antitumor-Promoter				
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Aromatase-Inhibitor IC45=1 uM/l	Journal of Medicinal Food 2: 235.1999.			
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Choleretic				
Cytochrome-P450-Inhibitor	Pizzorno, J. 1998. Total Wellness. Prima Health, a division of Prima.			
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Estrogenic EC50=0.1-25 uM/l				
Fungicide 2.5 mM				
Fungistat	Weidenborner, M., Hindorf, H., Jha, H.C., and Tsotsonos, P. 1989. Antifungal Activity of Flavonoids Against Storage Fungi of the Genus Aspergillus. <i>Phytochemistry</i> , 29(4): 1103-1105.			

IC₅₀=12 uMHepatoprotective
IC₅₀=3.37 ppm

Neuroprotective

P450-Inhibitor

Pesticide

Serotonin-Inhibitor
TNF-alpha-Inhibitor
IC₅₀=14.41 uMJeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.

Teratogenic

Topoisomerase-I-Inhibitor
Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. *Phytoestrogens: Potential Endocrine Disruptors in Males.* Toxicol Ind Health, 14: 223-237.Uterotrophic EC₅₀=0.1-25 uM/
CAMP-
Phosphodiesterase-
InhibitorJournal of Medicinal Food 2: 227.1999.
Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine.* John Bastyr College Publications, Seattle, Washington (Looseleaf).

PINOCEMBRIN	Shoot	--	105.0	-0.7	*
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Activities (9)

Anesthetic	Jung, J.H., Pummangura, S., Chaichantipyuth, C., Patarapanich, C., and McLaughlin, J.L. 1989. <i>Bioactive Constituents of Melodorum fruticosum.</i> <i>Phytochemistry.</i> 29(5): 1667-1670. 1990.
Antibacterial IC 3 ug/ml	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antileukemic	
Antiseptic	
Artemicide LC ₅₀ =12 ppm	Jung, J.H., Pummangura, S., Chaichantipyuth, C., Patarapanich, C., and McLaughlin, J.L. 1989. <i>Bioactive Constituents of Melodorum fruticosum.</i> <i>Phytochemistry.</i> 29(5): 1667-1670. 1990.
Candidicide IC 0.1-3 mg/ml	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Cytotoxic ED ₅₀ =21	
Fungicide	
Pesticide	

PINOCEMBRIN	Root	--	95.0	*
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Activities (9)

Anesthetic	Jung, J.H., Pummangura, S., Chaichantipyuth, C., Patarapanich, C., and McLaughlin, J.L. 1989. <i>Bioactive Constituents of Melodorum fruticosum.</i> <i>Phytochemistry.</i> 29(5): 1667-1670. 1990.
Antibacterial IC 3 ug/ml	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antileukemic	
Antiseptic	
Artemicide LC ₅₀ =12 ppm	Jung, J.H., Pummangura, S., Chaichantipyuth, C., Patarapanich, C., and McLaughlin, J.L. 1989. <i>Bioactive Constituents of Melodorum fruticosum.</i> <i>Phytochemistry.</i> 29(5): 1667-1670. 1990.
Candidicide IC 0.1-3 mg/ml	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Cytotoxic ED ₅₀ =21	
Fungicide	
Pesticide	

THYMOL	Leaf	--	--	*
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Activities (71)

Acaricide	
Allergenic	
Analgesic	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel.</i> Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Ancylostomicide	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel.</i> Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Anesthetic	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel.</i> Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Ankylostomacide	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel.</i> Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Anthelmintic	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiacne	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture.</i> Plenum Press, New York. 445 pp.
Antiaggregant IC ₅₀ =0.75	Tramil, 42: 511.
Antialzheimeran?	L. Gracza (1985) as cited by Buchbauer re antiacetylcholinesterase.
Antiarthritic	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel.</i> Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Antiatherosclerotic	
IC ₅₀ =4 uM	
Antibacterial MIC=50-400 ug/ml	
Antibronchitic	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel.</i> Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.

400 ug/ml	
Anticholinesterase	L. Gracza (1985) as cited by Buchbauer re antiacetylcholinesterase.
Antihalitosis	American Health, 12(4): 17, 1993.
Antiherpetic	Martindale's 28th
Antiinflammatory (=indomethacin)	
Antileptic	Madaus, G. 1976. Lehrbuch der Biologischen Hilfmittel. Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Antimelanomic IC50=120 uM/l	
Antineuritic	
Antioxidant 100 ppm	Martindale's 28th
Antioxidant (LDL) IC50=4 uM	
Antiperiodontic MIC=50-200 ug/ml	
Antiplaque MIC=39-625 ug/ml	Osawa, K., Matsumoto, T., Maruyama, T., Takiguchi, T., Okuda, K., and Takazoe, I. Studies of the antibacterial activity of plant extracts and their constituents against periodontopathic bacteria, Bull Tokyo Dent. Coll., 31 (1), 1990, 17-21
Antiradicular EC=60	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEOS: 153-8.
Antirheumatic	Williamson, E. M. and Evans, F. J. Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antisalmonella	
Antiseptic 20 x phenol	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Antispasmodic	
Antistaphylococcal	
Antistreptococcal MIC=200-400 ug/ml	
Antitrichinosic 5%	Madaus, G. 1976. Lehrbuch der Biologischen Hilfmittel. Vol. 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Antitussive	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
Ataxigenic	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Candidicide 100 ug/ml (>Nystatin)	
Carminative	Yamamoto, A., Umemori, S., and Muranishi, S. 1993. Absorption Enhancement of Intrapulmonary Administered Insulin by Various Absorption Enhancers and Protease Inhibitors in Rats. J. Pharm. Pharmacol. 46: 14-18, 1994.
Counterirritant	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Culicide LC50=36-49 mg/l	
Cyclooxygenase-Inhibitor (=indomethacin)	
Dentifrice	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Deodorant	Martindale's 28th
Dermatitogenic	
Enterorelaxant	J. Aromatherapy 4: 22.
Enterotoxic	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart. 393 pp.
Expectorant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
FLavor FEMA 2-100	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	Merck 11th Edition
Gastroirritant	Martindale's 29th
Gram(+)icide MIC=200-400 ug/ml	
Gram(-)icide MIC=50-200 ug/ml	
Insecticide LC50=36-49 mg/l	
Insecticide 0.22 uM/fly	
Insectifuge	
Irritant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Larvicide 10 ppm	Berenbaum, M. R., The natives knew, Chemtech, (May), 1990, 275-279.
Larvicide 58 ppm	
Larvicide LC50=36-49 mg/l	
Molluscicide	
Myorelaxant	J. Aromatherapy 4: 22.
Nematicide MLC=0.1 mg/ml	Shoyakugaku Zasshi, 44: 183.
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Pesticide	
Sedative	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Sprout-Inhibitor	Duke, J.A.. Personal Communication.
Tracheorelaxant	
Trichomonicide LD100=25 ug/ml	
Urinary-Antiseptic	Williamson, E. M. and Evans, F. J. Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

